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ABSTRACT

Based on the Ministry of Education, Science and Culture's 1986 survey of "Audiovisual Facilities in Schools and Social Education Institutions," this summary of the current status of the diffusion and utilization of audiovisual materials and equipment in Japan pays particular attention to public and private schools. Social education institutions also covered by the study include public halls, libraries, museums, children's centers, youth houses, children's culture centers, and women's educational centers. The survey showed that audiovisual equipment already highly diffused in the schools included television receivers, audiotape recorders, videotape recorders, radios, slide projectors, building-wide public address systems, overhead projectors, and record players. The 16mm projector and television receivers were found to be the items the most commonly available in social education facilities, followed by audiotape recorders and record players. The diffusion of microcomputers had increased the most at the senior high school level, but was still somewhat low in social education facilities. Examination of utilization rates indicated that, generally speaking, tape recorders and overhead projectors were the most commonly used items in the schools, while 16mm projectors were the most commonly used item in public halls. A survey of locally produced materials found that schools most often produced overhead transparencies, although 51% of the high schools reported producing their own computer software. The text is supplemented by 11 figures and 16 tables. (EW)

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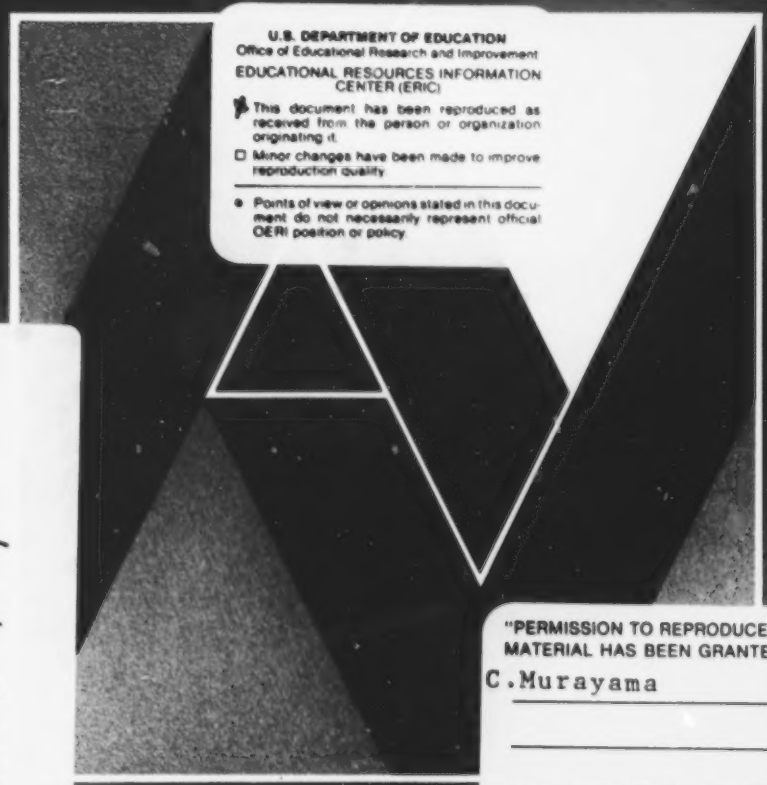

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AUDIOVISUAL MEDIA IN JAPAN TODAY

THE MINISTRY OF EDUCATION'S 1986 SURVEY ON AUDIOVISUAL MEDIA

Japan Audiovisual Information Center
for International Service
Japan Audiovisual Education Association

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Foreword

This pamphlet summarizes the current situation regarding the diffusion and utilization of audiovisual media and aids in Japan. It is based upon the Ministry of Education, Science and Culture's 1986 Survey on "Audiovisual Facilities in Schools and Social Education Institutions" and pays particular attention to school education. Two earlier pamphlets in this series (Numbers 23 and 24) using the Ministry of Education, Science and Culture's previous, 1983 survey, and widely distributed both abroad and in Japan, took up similar themes.

November 1987

Jiro Arimitsu, President
Japan Audiovisual Education Association

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CHAPTER ONE

Outline of the "Survey on Audiovisual Media and Aids in Schools and Social Education Facilities"

In 1986, the Information Division, Social Education Bureau, Ministry of Education, Science and Culture, conducted a "Survey on Audiovisual Media and Aids in Schools and Social Education Facilities." Its purpose was to investigate the situation regarding the diffusion and utilization of audiovisual media and aids in various types of educational facilities in Japan. The following is an outline of this survey.

"Survey on Audiovisual Media and Aids in Schools and Social Education Facilities"

I. Outline

A. Categories

1. Equipment
2. Utilization

B. Respondents

Public and private kindergartens, elementary schools, junior high schools, senior high schools, public halls, libraries, museums, children's centers, youth houses, children's culture centers and women's educational centers throughout Japan.

C. Time Frame

1. Equipment as of May 1, 1986
2. Utilization during academic year 1985

D. Items

"Equipment:" Quantities (of those items listed in Table 2) owned by each school and social education facility

"Utilization:" Percentage of teachers and staff using the available equipment, the degree of utilization throughout the year, and (for schools only) those subjects in which the various media were being used.

E. Method

Mail questionnaire

F. Percentages surveyed

Kindergartens	10%	
Elementary Schools	10%	
Junior High Schools	10%	
Senior High Schools	20%	
Public halls	10%	(excluding local branches of less than 1,000 m^2 in size)
Other Social Education Facilities	100%	

II. Response Rates

A. Equipment

Usable Responses	10,148
Percentage	98.30%

B. Utilization

Usable Responses	10,125
Percentage	98.07%

CHAPTER TWO
Diffusion of Audiovisual Equipment

I. Outline

Figure 1 shows the diffusion rates for the relatively more available types of audiovisual equipment included in this survey. With the exception of 16 mm movie projectors, the schools are generally better equipped than are the social education facilities.

A. Schools

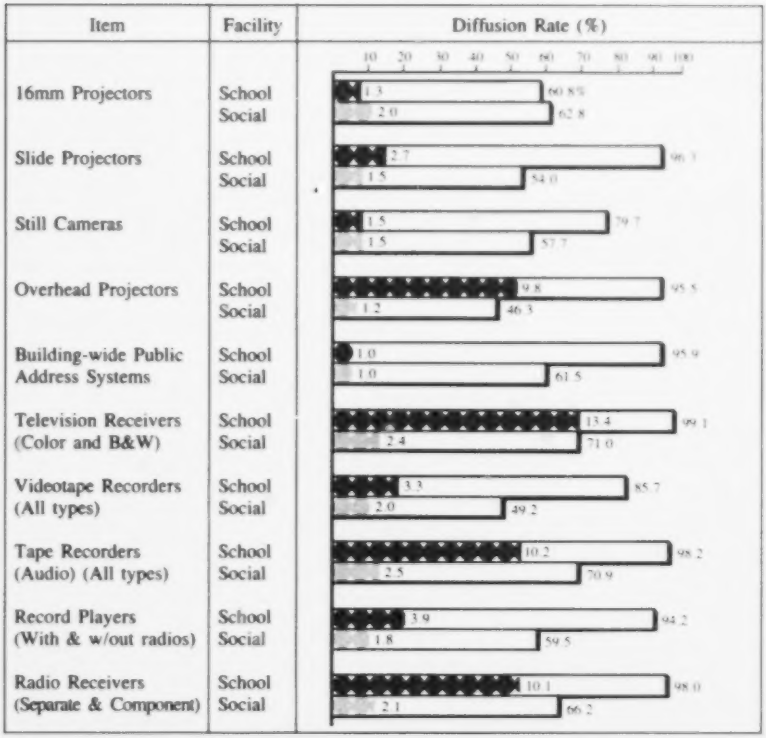
1. Audiovisual equipment already highly diffused in the schools includes TV receivers, tape recorders, radios, slide projectors, building-wide public address systems, overhead projectors and record players.

2. Since the diffusion rate for TV receivers at the elementary and the junior high school levels has reached almost 100%, nearly every school today has TV. The typical elementary school with TV has 18 sets, the typical junior high school has 11 and the typical senior high school has 9. It also appears that although the average number of color TV receivers is increasing, that of black and white TV receivers is on the decline.

3. Almost every school today also has one or more tape recorders. The diffusion rates for cassette tape recorders with built-in radios is particularly high. It also appears that the higher the level of schooling the more tape recorders available in each school. The average senior high school today owns 16 tape recorders.

4. With the exception of the kindergarten level (with a diffusion rate of only 72%), nearly every school today also has one or more overhead projectors. The average number of overhead projectors per school is highest at the elementary level (12), second at the junior high school level (11) and third at the senior high school level (6).

Figure One
Diffusion Rates and Quantities of Major Items of Audiovisual Education Equipment in School and Adult Education Facilities



Notes: "Schools" include kindergartens, elementary, junior high and senior high schools.
"Social Education Facilities" includes public halls, prefectural and municipal libraries, museums, youth houses (residential and non-residential), children culture centers and women's education centers.
Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

5. Slide projectors are the most common of all the various types of projectors available, with 99% of the senior high schools, 98% of the elementary schools and 97% of the junior high schools possessing such equipment. The diffusion rates for 8 mm and 16 mm projectors are also high at the upper levels of education; 96% of the senior high schools own one or more 16 mm projectors. The diffusion rates for 8 mm projectors, however, appears to be dropping at all levels of schooling.

6. Diffusion rates for videotape recorders are also higher at the upper levels of schooling. In 1986, 99% of all senior high schools had at least one videotape recorder and the average senior high school owned 5 such recorders. Cassette videotape recorders have become popular at all levels. In 1986, 89% of the elementary schools and 94% of the junior high schools had one or more cassette videotape recorders.

7. Compared to the previous, academic year 1983 survey, diffusion rates for color videocameras increased by at least 10% at the elementary and junior high school levels. At 85%, the diffusion of color plus black and white videocameras is highest at the senior high school level.

8. Diffusion of microcomputers has increased most at the senior high school level. Today, 86% of the senior high schools, 18% of the junior high schools and 4% of the elementary schools possess one or more microcomputers.

B. Social Education Facilities

1. The diffusion of audiovisual equipment in social education facilities is characterized by the fact that the 16 mm projector is the item most commonly available. Diffusion rates are highest in children's culture centers (85%), children's centers (80%) and public halls (79%).

2. In social education facilities, TV receivers have the highest overall diffusion rates. The most noticeable is the rates for public halls (88%), for youth houses (residential) (85%) and for children's culture centers (84%). In addition, most of these are color and not black and white sets.

3. Tape recorders are second, the diffusion rate for children's culture centers being 91% and that for children's centers being 84%. Most of these are cassette recorders rather than open reel.

4. The diffusion rates for record players are also relatively high, with over 70% of the children's centers, children's culture centers and public halls possessing one or more such items of equipment.

5. The speed with which the diffusion rates for cassette videotape recorders have increased has been particularly great. Compared to the 1983 survey, the diffusion rate for children's culture centers increased by 24%. When all types of videotape recorders are included, the highest diffusion rate is for public halls (63%).

6. The rate of diffusion for color videocameras has also increased over the past three years and, today 29% of all public halls possess one or more such items of equipment.

7. The diffusion of microcomputers among social education facilities is still somewhat low bei. ? over 10% only in children's culture centers, prefectural libraries and museums.

II. Diffusion Rates

Table 1 shows those audiovisual media with relatively high diffusion rates (i.e., 50% or higher in all facilities). For TV receivers and videotape recorders, it gives total diffusion rates regardless of type (i.e., B&W or color; open reel or cassette).

As shown here, TV receivers (B&W plus color) have the highest diffusion rate, nearly 85%, while tape recorders (open reel plus cassette) have a nearly equivalent rate of just over 84%.

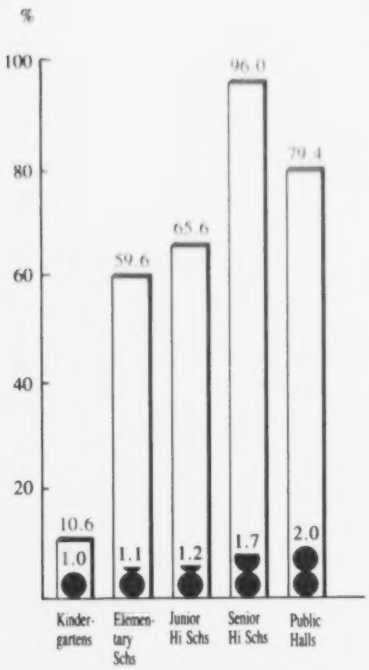
Figures 2 through 9 show the diffusion rates and average amounts on hand for certain major items of audiovisual equipment in kindergartens, elementary schools, junior and senior high schools, and public halls.

Table One
Diffusion Rate for
Major Items of Audiovisual Education Equipment

Item	Diffusion Rate (%)		
	All Facilities	Schools	Social Education
16 mm Projectors	61.8	60.8	62.8
Slide Projectors	74.5	96.3	54.0
Still Cameras	68.4	79.7	57.7
Overhead Projectors	70.2	95.5	46.3
Building-wide Public Address Systems	78.2	95.9	61.5
Television Receivers (Color and B&W)	84.6	99.1	71.0
Videotape Recorders (All types)	66.9	85.7	49.2
Tape Recorders (Audio) (All types)	84.1	98.2	70.9
Record Players (With & w/out radios)	76.4	94.2	59.5
Radio Receivers (Separate & built-in)	81.6	98.0	66.2
Number of Effective Responses	10,148	4,922	5,226

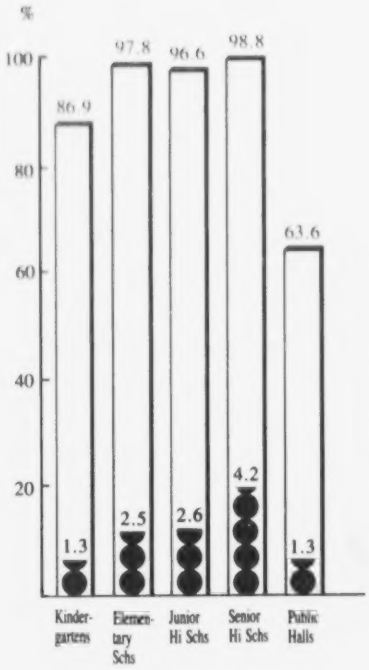
Notes: "Schools" include kindergartens, elementary, junior high and senior high schools.
"Social Education Facilities" includes public halls, prefectural and municipal libraries, museums, youth houses (residential and non-residential), children culture centers and women's education centers.

Figure Two
Diffusion of 16 mm Projectors



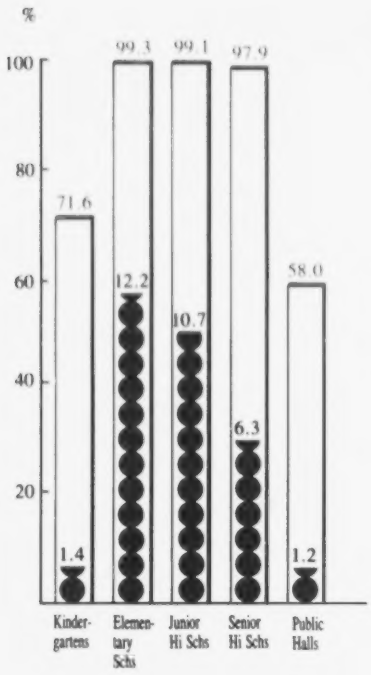
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Three
Diffusion of Slide Projectors



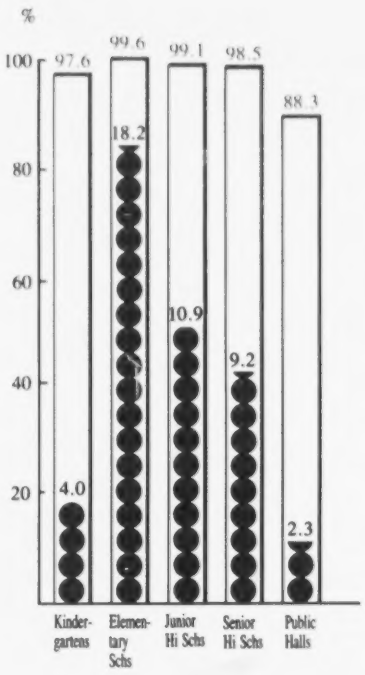
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Four
Diffusion of Overhead Projectors



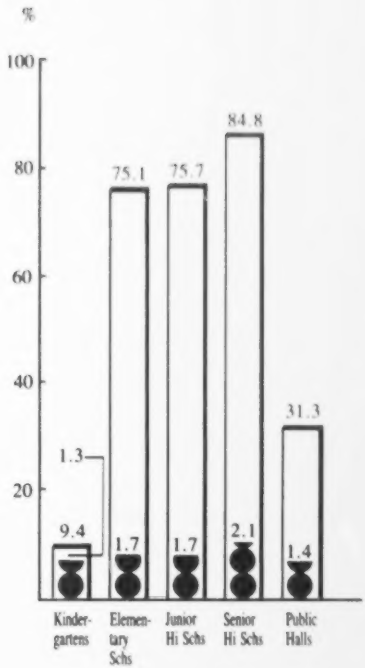
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Five
Diffusion of Television Receivers (Color and B&W)



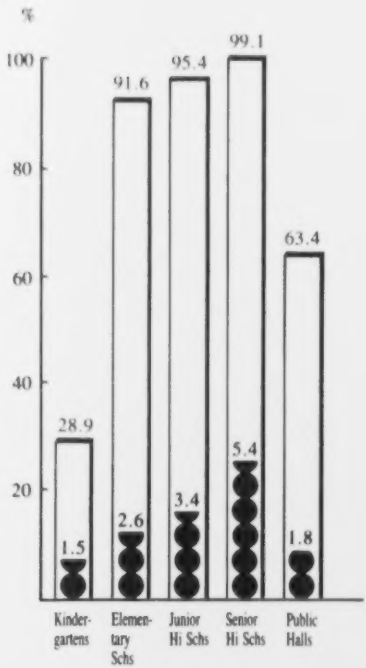
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Six
Diffusion of Video Cameras (Color and B&W)



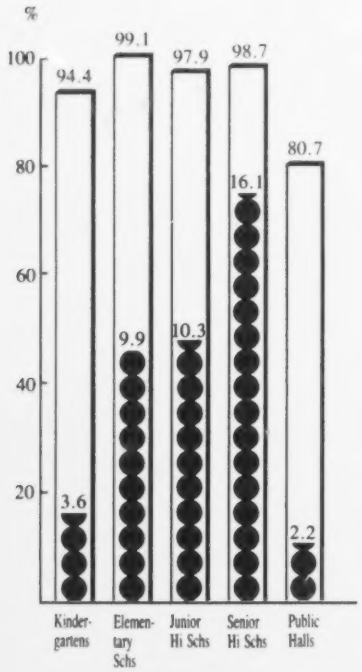
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Seven
Diffusion of Videotape Recorders (All types)



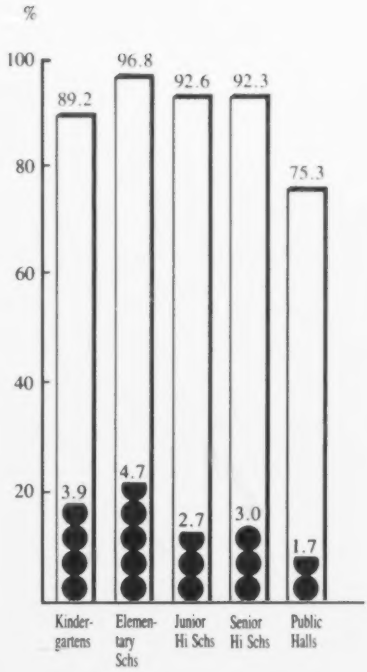
Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Eight
Diffusion of Tape Recorders
(All types)



Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

Figure Nine
Diffusion of Record Players



Note Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

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A. Diffusion Rates by Facility

1. Kindergartens

The most common audiovisual media available at the kindergarten level are TV receivers (color) at 97%, tape recorders (cassette, with radio) at 87%, slide projectors at 87% and building-wide public address systems at (84%). Combining various type of equipment, however, results in even higher diffusion rates: TV receivers (B&W plus color), 98%; radios (including those built into tape recorders and record players), 95%; and tape recorders (open reel plus cassette), 94%.

2. Elementary Schools

At the elementary school level, TV receivers (color) have the highest diffusion rate (nearly 100%). This is followed by overhead projectors (99%), building-wide public address systems (98%), and slide projectors (98%). Combining various types of equipment gives only a slightly higher figure for TV receivers (B&W plus color) while the diffusion rates for all types of audiotape players and radio receivers is close to 99%.

3. Junior High Schools

Overhead projectors and TV receivers (color) have the highest diffusion rates at the junior high school level, both being 99%. Next are building-wide public address systems (98%) and then slide projectors (97%). Grouping various types of equipment together results in only relatively small increases in diffusion rates: TV receivers (B&W plus color), 99%; tape recorders (open reel plus cassette), 98%; and radio receivers (separate plus built-in), 98%.

4. Senior High Schools

For senior high schools, however, slide projectors have the highest diffusion rate (99%). This is followed by videotape recorders (color, cassette), TV receivers (color), and overhead projectors; all of which have diffusion rates of around 98%. Next are building-wide public address systems which have

Table Two
Diffusion Rates by Type of Facility

Item	Diffusion Rate (%)				
	Kinder-gartens	Elemen-tary Schools	Junior High Schools	Senior High Schools	Public Halls
1. 16 mm Movie Proj.	10.64	59.62	65.56	95.96	79.38
2. 8 mm Movie Proj.	27.90	63.16	63.76	77.62	36.61
3. Concept Film Proj.	27.90	63.16	63.76	77.62	36.61
4. Slide Projectors	86.03	97.77	96.95	98.77	63.62
5. Still Cameras	81.77	84.67	73.60	71.27	71.64
6. Overhead Proj.	71.61	99.25	99.14	97.92	57.96
7. Transparency Copier	1.77	76.01	62.91	45.23	3.95
8. Opaque Projectors	1.29	35.31	39.45	35.45	2.95
9. TV Receivers (B&W)	5.16	11.41	10.59	27.99	4.79
10. TV Receivers (Color)	96.77	99.50	98.95	98.04	87.64
11. Video Cameras (B&W)	1.12	11.33	14.00	29.58	4.65
12. Video Cameras (Clr.)	8.38	73.21	73.03	80.56	19.46
13. Radio Receivers	21.93	44.00	35.57	39.73	19.95
14. VTR (B&W/Open Reel)	0.48	5.85	7.75	25.42	4.54
15. VTR (Clr/Open Reel)	2.90	10.34	14.09	21.14	9.09
16. VTR (Clr/Cassette)	27.25	89.32	93.56	99.16	58.27
17. Videodisc Players	5.16	7.37	8.98	8.31	4.30
18. Tape Recorders (Open reel)	8.87	20.84	26.20	61.49	20.54
19. Tape Recorders (Cassette)	32.90	39.84	47.58	70.17	36.09
20. Tape Recorders (Cassette, w/radio)	86.93	96.08	93.47	92.90	67.23

a diffusion rate of 96%. Diffusion rates become slightly higher when various types of equipment are grouped together: videotape recorders, tape recorders and TV receivers all reach 99%.

5. Public Halls

In public halls, the diffusion rate for TV receivers (color) is 88%, that for 16 mm movie projectors is 79% and that for cameras is 72%. Combining various types of equipment makes no difference for TV receivers, the rate for B&W plus color TV receivers still being 88%, but th diffusion rate for tape recorders (open reel plus cassette) is increased to 81%.

Table Two
Diffusion Rates by Type of Facility (Cont'd)

Item	Diffusion Rate (%)				
	Kinder-gartens	Elemen-tary Schools	Junior High Schools	Senior High Schools	Public Halls
21. Sheet Recorders	0.80	6.79	4.63	2.20	0.38
22. Record Players (without radios)	63.54	84.09	71.61	72.98	58.45
23. Record Players (with radios)	58.54	54.88	52.22	54.76	31.75
24. Compact Disk Players	0.80	2.51	4.06	9.65	1.73
25. Microcomputers	0.64	4.32	17.59	86.43	2.39
26. Response Analyzers	0.00	7.62	17.50	17.48	1.77
27. Language Lab'ries	0.00	0.37	20.24	21.63	0.20
28. Music Laboratories	0.16	3.04	1.89	1.71	0.34
29. Building-wide P.A. Systems	84.03	97.81	98.10	96.45	67.65
30. Building-wide T.V. Systems	3.54	52.32	28.47	4.88	2.29

III. Average Quantities Possessed

The following is an outline of the average quantities of equipment possessed by those facilities with such equipment.

A. Overall Average Quantities

Table 3 shows the average quantities for various kinds of audiovisual equipment possessed by all schools, by all social education facilities, and by both types of facilities, combined, which have any such equipment. It includes, however, only the more common items (average quantity owned being 5 or

Table Three
Average Quantity of Selected
Items of Audiovisual Education Equipment on Hand

Item	Quantity		
	All Facilities	Schools	Social Education
Overhead Projectors	6.9 (70.2)	9.8 (95.5)	1.2 (46.3)
Sheet Recorders	7.9 (2.5)	8.3 (4.8)	1.7 (0.2)
Microcomputers	7.9 (11.3)	9.8 (20.4)	3.5 (2.9)
TV Receivers (B&W and Color)	8.7 (84.6)	13.4 (99.1)	2.4 (71.0)
Tape Recorders (Open Reel and Cassette)	6.9 (84.1)	10.2 (98.2)	2.5 (70.9)
Radio Receivers (Built-in and separate)	6.7 (81.6)	10.1 (98.0)	2.1 (66.2)

Notes: "Schools" include Kindergartens, elementary, junior high and senior high schools.
"Social Education Facilities" includes public halls, prefectural and municipal libraries, museums, youth houses (residential and non-residential), children culture centers and women's education centers.
Diffusion rates (%) are in parentheses.

more). Also, for TV receivers, tape recorders and radio receivers, it shows the combined figures regardless of type.

According to this table, microcomputers, with an average of 8.9 units per facility, are owned in the greatest quantities (schools, 9.8; social education facilities, 3.5). This is followed by TV receivers at 8.7 units (schools, 13.4; social education facilities, 2.4). It should be noted that although the average number of sheet recorders owned per facility is high (7.9), the diffusion rate is a comparatively low 2.5%.

B. Average Ownership by Type of Facility

Table 4 gives average ownership per facility with said equipment for those media with relatively high ownership rates (but excluding those with diffusion rates of less than 10%).

Table Four
Ownership for those Media
with Relatively High Diffusion Rates

Facility	Media	Quantity Owned
Kindergartens	Radio Receivers (separate/built-in)	5.1
	TV Receivers (B&W and color)	4.0
	Record Players (with/without radios)	3.9
Elementary Schools	TV Receivers (B&W and color)	18.2
	Overhead Projectors	12.2
	Record Players (with/without radios)	11.3
Junior High Schools	TV Receivers (B&W and color)	10.9
	Overhead Projectors	10.7
	Tape Recorders (open reel/cassette)	10.3
Senior High Schools	Tape Recorders (open reel/cassette)	16.1
	Microcomputers	12.6
	Radio Receivers (separate/built-in)	11.1

IV. Trends

A. Changes in Diffusion Rates

Those audiovisual media which, between the previous suvery (as of May 1, 1983) and the current one, had increases in diffusion rates of 10% or more are shown in Table 5. The greatest increase in diffusion rate (from 56.4% to 86.4%, or 30%) was seen for microcomputers at the senior high school level. The diffusion rate for microcomputers at the junior high school increased by 15%. The increases in diffusion rates for videotape recorders were also rather high, being 14% at the kindergarten level, 16% at the elementary school level and 11% at the junior high school level.

Table Five
Increases in Diffusion Rates for
Selected Items of Audiovisual Education Equipment

Facility	Item	1983 Diffusion Rate	1986 Diffusion Rate	Increase
Kindergarten	VTR (Cassette/Color)	13.2	27.3	14.1
Elementary School	Videocamera (Color)	58.4	73.2	14.8
	VTR (Cassette/Color)	72.9	89.3	16.4
Junior High School	Videocamera (Color)	62.0	73.0	11.0
	VTR (Cassette/Color)	83.0	93.6	10.6
	Microcomputer	3.1	17.6	14.5
Senior High School	Microcomputer	56.4	86.4	30.0
Public Halls	VTR (Cassette/Color)	47.1	58.3	11.2

B. Changes in Possession Rates

By facility, Table 6 shows those items of audiovisual equipment for which average ownership increased by at least one unit between the 1983 and the current survey (excluding those media with diffusion rates of less than 10%).

Table Six
Increases in Ownership for those
Media which Increased by an Average of at least One

Facility	Media	Increase
Elementary Schools	TV Receivers (color)	1.5
	Tape Recorders (cassette, w/radio)	1.8
Junior High Schools	TV Receivers (color)	2.0
	Tape Recorders (cassette, w/radio)	1.4
	Microcomputers	1.7
Senior High Schools	TV Receivers (color)	2.2
	Videotape Recorders (color, cassette)	1.9
	Tape Recorders (cassette, w/radio)	2.2
	Microcomputers	8.4

Table 7 shows, by schools, those items of audiovisual equipment which, between the 1983 survey and the current one, had an increase in diffusion rate of 10% or more, or an increase in ownership of 1 or more units (excluding items with diffusion rates of less than 10%). The upper left quadrant of this table lists those items of equipment for which their were major increases in both diffusion rates and in possession. The lower left quadrant lists those items of equipment which had a major increase in diffusion rate only, while the upper right quadrant lists those items of equipment which had a major increases in possession only. The percentages are the diffusion rates collected from the current survey.

Microcomputers, at the junior and the senior high school levels, were the only items for which both diffusion rates increased by 10% or more and possession also increased by 1 unit or more. Because diffusion rates for most items of audiovisual equipment are already at or near their potential maximums and these items are now entering an era of increasing ownership only, it appears that microcomputers have possibly entered a new period of rapid diffusion.

The diffusion rates for nearly all of the items which had major increases in possession rates only (the upper right quadrant of Table 7) are already very close to 100%. Further, those items which showed a major increase in diffusion rates but not in possession have yet to reach their maximum limits of diffusion.

V. Diffusion and Possession of the New Media

Microcomputers began to be included with the previous survey while videodisk and compact disk players were included for the first time with the current survey. The results related to these new media were as follows:

Table Seven
Types of Audiovisual Education Equipment
by Changes in Diffusion Rates and Quantities on Hand

		Increases in Diffusion Rates	
		10% or more	Less than 10%
Average Increase in Quantities on Hand	1 or more	Junior High Schools — 17.6% Microcomputers Senior High Schools — 86.4 Microcomputers	Elementary Schools — 99.5% TV Receivers (Color) Tape Recorders — 96.1 (Cassette, w/radio) Junior High Schools — 99.0 TV Receivers (Color) Tape Recorders — 93.5 (Cassette, w/radio) Senior High Schools — 98.0 TV Receivers (Color) VTR — 98.2 (Cassette, Color) Tape Recorders — 92.9 (Cassette, w/radio)
	Less than 1	Kindergartens — 27.3% VTR (Cassette, Color) Elementary Schools — 73.2 Video Cameras (Color) VTR — 89.3 (Cassette, Color) Junior High Schools — 73.0 Video Cameras VTR — 93.6 (Cassette, Color)	

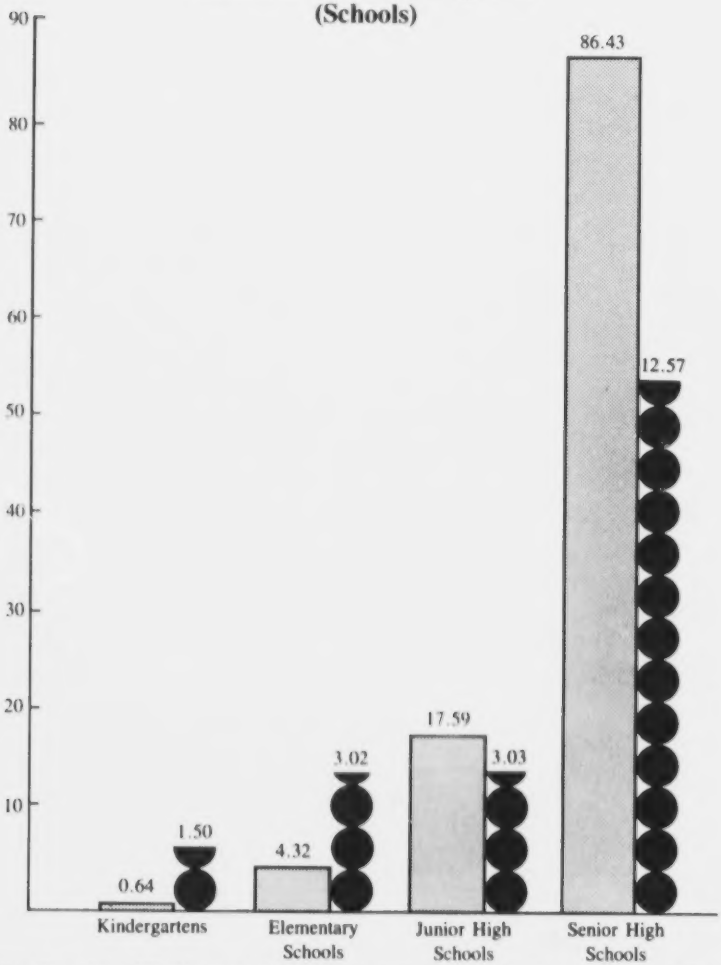
A. Microcomputers

Microcomputer diffusion and possession rates, by facility, are shown in Table 8 while the situation in relation to schools is also outlined in Figure 10. Microcomputer diffusion, at 86%, is greatest at the senior high school level. It is only 18% at the junior high school level and a very low 4% at the elementary school level. Microcomputer ownership (12.6) is also highest at the senior high school level. However, for all types of facilities, both diffusion and possession rates are growing rapidly.

Table Eight
Microcomputer Diffusion Rates
and Quantities on Hand by Facility

Facility	Diffusion Rate	Average Quantity on Hand
Kindergartens	0.64%	1.50
Elementary Schools	4.32	3.02
Junior High Schools	17.59	3.03
Senior High Schools	86.43	12.57
Public Halls	2.39	2.60
Prefectural Libraries	14.06	1.33
Municipal Libraries	1.38	1.84
Museums	10.78	5.96
Children's Centers	1.63	1.00
Youth Houses (Residential)	0.91	1.00
Youth Houses (Non-residential)	3.47	5.50
Children's Culture Centers	19.11	6.69
Women's Education Centers	1.85	1.00

Figure Ten
Diffusion of Microcomputers
(Schools)

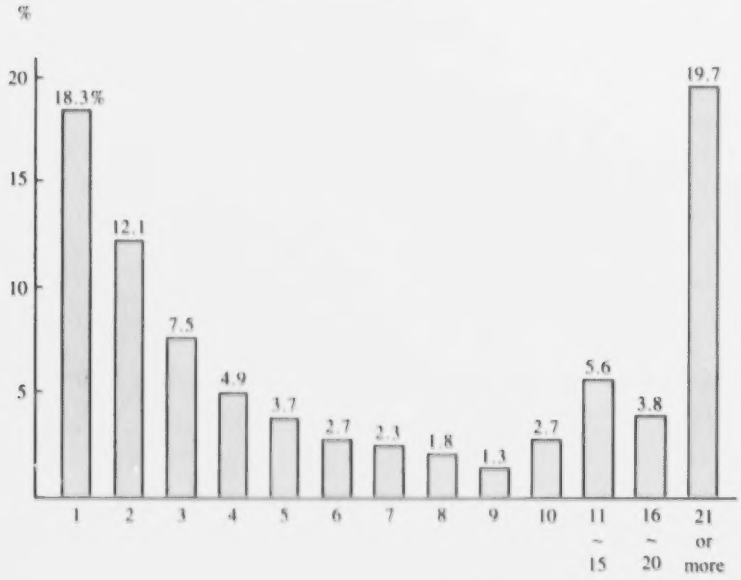


Note: Bars show diffusion rates; dots the average quantity per facility (1 dot = 1 item).

B. Microcomputers at the Senior High School Level

The distribution curve for microcomputers at the senior high school level, taken from the 1983 survey, is shown as a bar graph in Figure 11. The vertical axis indicates the percentage of schools while the horizontal axis shows the number of microcomputers possessed. As shown here, while 18.5% of the senior high schools possessing one or more microcomputers have only one, 47% of them have 5 or more and 32% have 10 or more.

Figure Eleven
Distribution of Microcomputers within the Senior High Schools
(Percentage of schools with indicated number of microcomputers)



C. Videodisk and Compact Disk Players

The 1986 survey was the first time that videodisk and compact disk players were included. As shown in Table 9, in all types of institutions, the diffusion rates for these new media are still less than 10%.

Table Nine
Videodisc and Compact Disc Player
Diffusion Rates by Facility

Facility	Videodisc Players	Compact Disc Players
Kindergartens	5.16%	0.80
Elementary Schools	7.37	2.51
Junior High Schools	6.98	4.06
Senior High Schools	8.31	9.65
Public Halls	4.30	1.73
Prefectural Libraries	6.25	9.37
Municipal Libraries	3.49	4.94
Museums	8.17	1.48
Children's Centers	2.73	2.18
Youth Houses (Residential)	5.96	0.91
Youth Houses (Non-residential)	1.73	2.60
Children's Culture Centers	5.88	2.94
Women's Education Centers	1.85	0.00

CHAPTER THREE
Utilization of Audiovisual Media and Aids

I. Utilization by Teachers

In order to better understand the actual utilization of audiovisual equipment and aids, the survey also asked for the percentage of teachers in each facility who had used specific items of audiovisual equipment in their instruction (in a class or lecture in social education facilities) at least once during academic year 1985. The items included in this part of the survey were 16 mm projectors, slide projectors, overhead projectors, tape recorders, record players, TV receivers (off-air utilization only), videotape recorders, video cameras, group response analyzers, microcomputers, language laboratories and music laboratories. The results of the survey indicated that, generally speaking, tape recorders and overhead projectors were the most commonly used items (i.e., those with high percentages of users) in the schools.

A. Kindergartens

A rather high percentage of teachers use record players, tape recorders and slide projectors. Teachers in 60.8% of the kindergartens responding to this survey used record players while 54.2% of them used tape recorders. Both of these media also have high diffusion rates (record players, 89%; tape recorders, 94%). The percentage of kindergartens which reported that their teachers had used 16 mm projectors was actually higher than the percentage which reported they owned such equipment. This indicates that many kindergartens borrow 16 mm projectors as necessary.

B. Elementary Schools

High utilization rates were given for TV (off-air utilization), tape recorders and overhead projectors, all of which also have high diffusion rates. Of those elementary schools which replied, 46% of them said that all of their teachers had used TV (off-air utilization) the previous academic year.

C. Junior High Schools

Overhead projectors and tape recorders both had relaltively high utilization rates at the junior high school level. However, in comparison to kindergartens and elementary schools, the percentage of schools which replied that all of their teachers were using these media was relative low. Compared to a TV receiver diffusion rate of 99%, the percentage of junior high schools which replied that their teachers had used TV (off-air utilization) was a surprisingly low 42%. It may be assumed that this difference reflects the recent increase in the use of videotaped programs.

D. Senior High Schools

At the senior high school level, videotape recorders, tape recorders and 16 mm projectors had relatively high utilization rates. Just as was the case at the junior high school level, the percentage which replied that all of their teachers were using these media was relatively low, at least in comparison to kindergartens and elementary schools. The percentage of teachers using microcomputers was higher than were the percentages of teachers using any other of the audiovisual media. The survey showed that microcomputers were being used by from 1 to 19% of the teachers in 41% of the senior high schools and by from 20 to 39% of the teachers in another 16%. Also, just as was seen at the junior high school level, the percentage of teachers using TV (off-air utilization) was relatively low in comparison to TV receiver diffusion rates. Again, this is thought to be due to the increased use of videotaped programs.

E. Public Halls

The most frequently used audiovisual media in public halls appears to be the 16 mm projector. Of the public halls which responded to this survey, 17% reported that 16 mm projectors were used by all of their staff while another 59% said that they were used by at least 40% or more of their employees. These utilization rates were higher than the 16 mm projector diffusion rate, indicated that such equipment is oftentimes borrowed.

II. Frequency of Utilization

In order to grasp the frequency with which various audiovisual media were being used, the survey also asked how frequently each teacher/employee used each piece of equipment. The responses were divided into (1) about once a year, (2) once or twice a month, (3) approximately once a week, and (4) more than twice a week. The following analysis is based on responses only from those schools and facilities which indicated that their teachers or employees were actually using the specific media.

A. Kindergartens

The most frequently used audiovisual aid at the kindergarten level is the record player. Approximately 66% replied that, on a per teacher basis, they were using record players twice or more a week. Results showed that TV (off-air utilization) and tape recorders were also being used rather frequently.

B. Elementary Schools

In the elementary schools, TV (off-air utilization) appeared to be the most frequently used media; 57% of the elementary schools reported that, on a per teacher basis, off-air TV programs were being used more than twice a week. Other media with high frequency rates included the record player, the tape recorder and the overhead projector. While the percentage of elementary schools which reported they were using music laboratories was very low, those which reported they were being used also reported that they were being used frequently. Nearly 70% of the elementary schools using music laboratories reported that they were being used at least once a week or more.

C. Juniror High Schools

The most frequently used audiovisual media at the junior high school level was the tape recorder; 64% of the schools reported that the per teacher utilization frequency rate was twice a week of more. Other media with high frequency rates were the overhead projector and the record palyer. While the

percentage of schools which replied that they were using microcomputers was relatively low, those which were using them also indicated a high frequency of use. Approximately 51% of the junior high schools which reported that they were using microcomputers stated that 51% of the teachers using them did so at least once or more each week.

D. Senior High Schools

The survey showed that the most frequently used media at the senior high school level included the tape recorder and the microcomputer. The frequency of utilization of microcomputers was particularly high, with 71% of all using schools reporting that the per teacher utilization rate was once or more each week. The senior high schools also reported that the frequency of use of videotape recorders was also rather high; 56% of all using schools replied that the per teacher utilization rate was once or more each week.

III. Utilization by Subject Matter

For elementary and junior and senior high schools, the survey also asked what subjects each of the audiovisual media included in the survey were most commonly used in. Tables 10 through 14 outline the results (based upon only those schools which reported they were using that particular media).

Table Ten
Most Popular Subjects for Using Overhead Projectors

Rank Order	Elementary Schools		Junior High Schools		Senior High Schools	
	Subject	Ratio	Subject	Ratio	Subject	Ratio
1	Arithmetic	46.5%	Social Studies	35.1%	Science	37.8%
2	Social Studies	32.5	Science	31.3	Social Studies	16.3
3	Science	10.0	Mathematics	11.9	Domestic Science	9.1
4	Japanese	7.1	Foreign Languages	9.4	Industrial Science	9.1
5	Morals	1.6	Industrial & Domestic Arts	5.5	Commerce	5.1
No. of Replies	2,402		1,027		728	

Table Eleven
Most Popular Subjects for Using Tape Recorders

Rank Order	Elementary Schools		Junior High Schools		Senior High Schools	
	Subject	Ratio	Subject	Ratio	Subject	Ratio
1	Music	53.2%	Foreign Languages	80.3%	Foreign Languages	78.8%
2	Japanese	28.9	Music	6.6	Special Activities	6.1
3	Physical Education	7.2	Japanese	3.6	Music	4.2
4	Special Activities	5.9	Special Activities	3.3	Physical & Health Ed.	3.0
5	Other	1.7	Morals	2.2	Japanese	2.3
No. of Replies	2,224		984		706	

Table Twelve
Most Popular Subjects for Using Off-air Television

Rank Order	Elementary Schools		Junior High Schools		Senior High Schools	
	Subject	Ratio	Subject	Ratio	Subject	Ratio
1	Science	36.5%	Science	36.0%	Special Activities	22.1%
2	Morals	29.3	Special Activities	24.9	Social Studies	19.1
3	Social Studies	25.6	Other	14.9	Science	18.5
4	Special Activities	5.1	Social Studies	9.5	Health & Physical Ed.	11.8
5	Other	1.2	Morals	4.8	Other	9.4
No. of Replies	2,333		442		330	

Table Thirteen
Most Popular Subjects for Using Videotape Recorders

Rank Order	Elementary Schools		Junior High Schools		Senior High Schools	
	Subject	Ratio	Subject	Ratio	Subject	Ratio
1	Social Studies	27.6%	Science	46.7%	Special Studies	27.3%
2	Special Activities	25.7	Special Activities	14.8	Science	27.1
3	Science	21.9	Social Studies	13.4	Physical & Health Ed.	12.0
4	Physical Education	9.7	Health Education	11.2	Special Activities	10.6
5	Other	6.3	Other	3.3	Foreign Languages	4.5
No. of Replies	2,165		990		801	

Table Fourteen
Most Popular Subjects for Using Microcomputers

Rank Order	Elementary Schools		Junior High Schools		Senior High Schools	
	Subject	Ratio	Subject	Ratio	Subject	Ratio
1	Arithmetic	42.6%	Other	62.5%	Mathematics	26.3%
2	Other	31.8	Special Activities	18.8	Commerce	18.3
3	Special Activities	10.1	Mathematics	10.8	Other	16.9
4	Science	5.4	Science	4.5	Industry	14.2
5	Japanese	2.3	Industrial & Domestic Arts	2.3	Special Activities	9.4
No. of Replies	129		176		562	

IV. Local Production of Materials

A survey inquiring into the amount of local production (either by individual teachers or by audiovisual centers or libraries) being done in Japan was conducted in 1985. Table 15 shows, by school or social education facility, the percentage of institutions which locally produced at least one of any of the five types of materials listed across the top of the table. In the schools, overhead projector transparencies were the most frequently produced materials. Also, 51% of the senior high schools reported that they prepared their own computer software.

Table Fifteen
Percentages of Locally-Produced Materials

Facility	Media					No. of Responses
	Slides	OHP Trans-parencies	Video Tapes	Audio Tapes	Compu-ter Software	
Kindergartens	19.7%	40.5%	14.4%	17.4%	0.2%	620
Elem. Schools	52.0	90.7	64.7	53.9	5.2	2,425
Jr. Hi. Schls	44.6	86.8	59.0	44.7	11.8	1,057
Sr. Hi. Schls	52.8	69.2	65.9	37.9	50.7	817
Public Halls	12.1	11.3	21.6	9.5	0.6	2,868
Prefectural Libraries	11.1	14.3	7.9	11.1	1.6	63
Municipal Libraries	3.0	3.4	4.5	4.2	0.1	1,370
Museums	32.3	9.7	22.3	9.3	4.1	269
Children's Centers	26.8	29.5	20.2	15.3	0.5	183
Youth Houses (Residential)	15.2	24.4	16.6	12.9	0.9	217
Youth Houses (Non-res'tial)	6.1	6.1	11.4	4.4	0.9	114
Children's Culture Centers	19.1	13.2	8.8	10.3	5.9	68
Women's Education Centers	3.7	5.6	9.3	1.9	0.0	54

Table 16 shows the average quantity of locally-produced items prepared by level of schools or type of social education facility during the previous year.

Table Sixteen
Average Number of Locally-Produced Materials

Facility	Media				
	Slides	OHP Trans-parencies	Video Tapes	Audio Tapes	Compu-ter Software
Kindergartens	3.9	9.2	4.5	9.5	1.0
Elem. Schools	4.8	62.4	7.5	14.6	4.2
Jr. Hi. Schools	4.2	75.3	9.3	13.6	5.1
Sr. Hi. Schools	6.0	56.8	13.4	12.6	10.8
Public Halls	2.9	14.0	6.2	10.8	5.4
Prefectural Libraries	1.4	50.2	4.6	12.7	8.0
Municipal Libraries	4.1	9.2	8.0	21.8	53.0
Museums	11.3	18.2	4.7	4.8	13.1
Children's Centers	2.7	31.0	5.1	7.8	6.0
Youth Houses (Residential)	6.3	22.1	4.9	13.3	5.5
Youth Houses (Non-residential)	2.7	18.7	11.5	13.2	8.0
Children's Culture Centers	6.8	24.4	4.0	8.3	5.8
Women's Education Centers	1.5	4.0	9.6	10.0	—